

WHAT IS CLAIMED IS:

- 1 1. A method for enabling re-use of presentation objects by a printing
2 system, comprising:
3 identifying an object for presentation by a printing system, and
4 assigning a globally-unique identifier to the object.
- 1 2. The method of claim 1 wherein the globally-unique identifier assigned
2 to the object allows the object to be securely and correctly referenced for re-use.
- 1 3. The method of claim 1 wherein the globally-unique identifier assigned
2 to the object is platform-independent.
- 1 4. The method of claim 1 wherein the globally-unique identifier is based
2 upon an International Standards Organization administered global naming tree.
- 1 5. The method of claim 1 wherein the globally-unique identifier is
2 contained in a syntax structure of a data stream.
- 1 6. The method of claim 5 wherein the data stream is a Mixed Object
2 Document Content Architecture data stream.

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1 7. The method of claim 1 wherein the assigning a globally-unique
2 identifier further comprises:
3 requesting, in an International Standards Organization administered global
4 naming tree, a first node for an application that uses the object;
5 registering, under the first node, a second node for each license of the
6 application; and
7 assigning a globally-unique identifier for the object, the globally-unique
8 identifier including an indication of the object, the first node and the second node.

1 8. The method of claim 1 wherein the assigning a globally-unique
2 identifier further comprises generating a globally-unique identifier for an object, the
3 generated globally-unique identifier includes an indication of a first node
4 representing an application that uses the object, of a second node for each license
5 of the application and of the object.

1 9. The method of claim 8 wherein the indication of the object includes a
2 time stamp.

1 10. The method of claim 9 wherein the time stamp includes an indication
2 of the date and time.

1 11. The method of claim 8 wherein the indication of the object includes a
2 checksum value.

1 12. The method of claim 8 wherein the indication of the object includes a
2 binary counter.

1 13. A method for managing presentation objects for multiple use,
2 comprising:
3 caching an object when downloaded; and
4 capturing the object in memory if a globally-unique identifier has been
5 assigned to the object.

1 14. The method of claim 13 wherein the memory comprises permanent
2 storage.

1 15. The method of claim 13 further comprising deleting previously
2 captured objects to increase available capture storage area in the memory.

1 16. The method of claim 15 wherein the deleting comprises deleting non-
2 active, least-recently used objects first.

1 17. The method of claim 15 wherein the deleting comprises largest objects
2 first.

1 18. The method of claim 15 wherein the deleting comprises smallest
2 objects first.

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1 19. A method for processing referenced objects, comprising:
2 referencing an object by selected indicia, the selected indicia being a name, a
3 globally-unique identifier or a globally-unique identifier and an object locator;
4 searching for the object by the selected indicia; and
5 determining whether to capture the object based upon whether the selected
6 indicia includes a globally-unique identifier.

1 20. The method of claim 19 wherein the referencing of the object is by an
2 object name and the searching for the object is performed by object name.

1 21. The method of claim 20 further comprising attempting to find the object
2 when the object resident in a presentation device is referenced with a globally-
3 unique identifier.

1 22. The method of claim 21 further comprising downloading and capturing
2 the object when the attempt to find the resident object fails and the object is
3 referenced from a secure environment.

1 23. The method of claim 19 wherein the referencing of the object is by a
2 globally-unique identifier.

1 24. The method of claim 23 further comprising attempting to find the object
2 resident in the presentation device using a globally-unique identifier.

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1 25. The method of claim 24 further comprising searching for the resource
2 inline in a resource group in a print file when the search for a resident globally-
3 unique identifier fails.

1 26. The method of claim 25 further comprising downloading and capturing
2 the object by the globally-unique identifier if the resource is found inline in a
3 resource group in the print file and the object is secure.

1 27. The method of claim 19 wherein the referencing of the object is by a
2 globally-unique identifier and an object locator.

1 28. The method of claim 27 further comprising attempting to find the object
2 resident in the presentation device using a globally-unique identifier.

1 29. The method of claim 28 further comprising searching for the resource
2 inline in a resource group in a print file when the search for a resident globally-
3 unique identifier fails.

1 30. The method of claim 29 further comprising downloading and capturing
2 the object by the globally-unique identifier if the resource is found inline in a
3 resource group in the print file and the object is secure.

1 31. The method of claim 29 further comprising looking for the object in a
2 resource library by object locator when the inline search is unsuccessful.

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1 32. The method of claim 31 further comprising determining whether the
2 globally-unique identifier assigned to the object matches the globally-unique
3 identifier referenced.

1 33. The method of claim 32 further comprising downloading and capturing
2 the object by the globally-unique identifier if the globally-unique identifier assigned to
3 the object matches the globally-unique identifier referenced.

1 34. The method of claim 32 further comprising indicating an error if the
2 globally-unique identifier assigned to the object does not match the globally-unique
3 identifier referenced.

1 35. The method of claim 32 further comprising indicating an error if the
2 object does not contain a globally-unique identifier.

1 36. The method of claim 19 further comprising downloading the object
2 without generating an error when a capture storage is full.

1 37. A object data structure of a data stream for referencing and identifying
2 presentation objects, the object data structure including a globally-unique identifier
3 assigned to a presentation object, the globally-unique identifier providing integrity to
4 object identification.

1 38. The data structure of claim 37 wherein the globally-unique identifier
2 assigned to the object allows the object to be securely referenced for re-use.

1 39. The data structure of claim 37 wherein the globally-unique identifier
2 assigned to the object is platform-independent.

1 40. The data structure of claim 37 wherein the data stream is a Mixed
2 Object Document Content Architecture data stream.

1 41. The data structure of claim 37 wherein the globally-unique identifier
2 comprises a date and time stamp.

1 42. The data structure of claim 37 wherein the globally-unique identifier
2 comprises a checksum value.

1 43. The data structure of claim 37 wherein the globally-unique identifier
2 comprises a binary counter.

1 44. A system for managing presentation objects for multiple use,
2 comprising:
3 a cache for caching an object when downloaded; and
4 printer capture storage for capturing the object if a globally-unique identifier
5 has been assigned to the object.

1 45. The system of claim 44 further comprising a print server, the print
2 server deleting previously captured objects in the printer capture storage.

1 46. The system of claim 44 further comprising a print server, the print
2 server deleting previously downloaded or active objects.

1 47. The system of claim 46 wherein the previously downloaded or active
2 objects exist in capture storage or cache storage.

1 48. The system of claim 46 further comprising a printer control unit for
2 marking deleted objects in capture storage as removable.

1 49. The system of claim 48 wherein a removable object is deleted when a
2 capture request is received to make storage available to capture a new resource.

1 50. A system for processing referenced objects, comprising:
2 a print server for searching for an object referenced by a selected indicia in a
3 data stream, the selected indicia being a name, a globally-unique identifier or a
4 globally-unique identifier and an object locator; and
5 a control unit for capturing the object;
6 wherein the control unit determines if the object is to be captured based upon
7 whether the selected indicia includes a globally-unique identifier.

1 51. The system of claim 50 wherein the data stream references the object
2 by an object name and the print server searches for the object by object name.

1 52. The system of claim 51 wherein the print server attempts to find the
2 object resident in a presentation device when the object is referenced with a
3 globally-unique identifier.

1 53. The system of claim 52 wherein the print server downloads the object
2 and the control unit captures the object when the attempt to find the resident object
3 fails and the object is referenced from a secure environment.

1 54. The system of claim 50 wherein the control unit references the object
2 by a globally-unique identifier.

1 55. The system of claim 54 wherein the print server attempts to find the
2 object resident in the presentation device using a globally-unique identifier.

1 56. The system of claim 55 wherein the print server searches for the
2 resource inline when the search for a resident globally-unique identifier fails.

1 57. The system of claim 56 wherein the print server downloads the object
2 and the control unit captures the object by the globally-unique identifier if the
3 resource is found inline and the object is secure.

1 58. The system of claim 50 wherein the data stream references the object
2 by a globally-unique identifier and an object locator.

1 59. The system of claim 58 wherein the print server attempts to find the
2 object by searching for a resident globally-unique identifier.

1 60. The system of claim 59 wherein the print server searches for the
2 resource inline when the search for a resident globally-unique identifier fails.

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1 61. The system of claim 60 wherein the print server downloads and the
2 control unit captures the object by the globally-unique identifier if the resource is
3 found inline and the object is secure.

1 62. The system of claim 60 wherein the print server looks for the object by
2 object locator in a resource library when the inline search is unsuccessful.

1 63. The system of claim 62 wherein the print server determines whether
2 the globally-unique identifier assigned to the object matches the globally-unique
3 identifier referenced.

1 64. The system of claim 63 wherein the print server downloads the object
2 and the control unit captures the object by the globally-unique identifier if the
3 globally-unique identifier assigned to the object matches the globally-unique
4 identifier referenced.

1 65. The system of claim 63 wherein the print server provides an indication
2 of an error if the globally-unique identifier assigned to the object does not match the
3 globally-unique identifier referenced.

1 66. The system of claim 63 wherein the print server provides an indication
2 of an error if the object does not contain a globally-unique identifier.

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1 67. An article of manufacture comprising a program storage medium
2 readable by a computer, the medium tangibly embodying one or more programs of
3 instructions executable by the computer to perform a method for managing
4 presentation objects for multiple use, the method comprising:
5 caching an object when downloaded; and
6 capturing the object in permanent storage if a globally-unique identifier has
7 been assigned to the object.

1 68. The article of manufacture of claim 67 further comprising deleting
2 previously captured objects to increase available capture memory.

1 69. An article of manufacture comprising a program storage medium
2 readable by a computer, the medium tangibly embodying one or more programs of
3 instructions executable by the computer to perform a method for processing
4 referenced objects, the method comprising:
5 referencing an object by selected indicia, the selected indicia being a name, a
6 globally-unique identifier or a globally-unique identifier and an object locator;
7 searching for the object by the selected indicia; and
8 determining whether to capture the object based upon whether the selected
9 indicia includes a globally-unique identifier.

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